REMARKS

Claims 1-15 are pending in the application. By this submission, applicants have amended claims 1, 5, 7 and 12. In light of these amendments and accompanying remarks, applicants have fully responded to the Office Action's rejections and applicants respectfully request favorable reconsideration of the application.

On the Merits

Claims 1-4, 7-10 and 12-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Weiss* (US Patent 6,681,156) in view of *Tanner* (US Patent 6,636,784). Claims 5, 6, 11 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Weiss* in view of *Tanner* and further in view of *Mistr* (US Patent 5,794,212). Each of these rejections is respectfully traversed.

Independent Claim 1:

Applicants have amended independent claim 1 to include the requirement of "setting an adjustable current limiter to said determined contract current for each of the users." The "adjustable current limiter" is a specific requirement and physical piece of hardware which is not disclosed or fairly suggested in any of the cited references.

In the Office Action dated November 29, 2005 the Office Action relied upon *Tanner* to show a current limiter (circuit re-closer). Penultimate paragraph on page 6 of the Office Action. However, this circuit re-closer is not the same as an "adjustable current limiter" as required by claim 1.

An adjustable current limiter is defined on page 15, lines 16 and 17. There it states, "The breaker 130 can set a plurality of over current values in advance so as to change an over current value to be set." Furthermore, on page 18, lines 16 and 17 it is stated, "With this structure, a user can freely change the over current value which the breaker 130 interrupts the circuit." Therefore, because none of the cited references disclose or fairly suggest the **adjustable** nature of the "current limiter," the amendment addresses and overcomes the Office Action's rejection regarding claim 1.

Independent Claim 7:

Independent claim 7 was amended to include a "current limiter" and "setting said current limiter to said contracted current for each of the users." For similar reasons to those discussed with respect to claim 1, none of the cited references disclose or fairly suggest the ability to set the current limiter to a contracted current. As indicated earlier, *Tanner* discloses a "circuit re-closer" but nowhere does *Tanner* indicate or fairly suggests that the re-closer be set to the contracted current for each user.

Independent Claim12:

Independent claim 12 calls for *a current limiter provided to each of the users, the current limiter being controlled on the basis of information from the server.* For similar reasons to those discussed with respect to claim 1, none of the cited references disclose or fairly suggest the ability to control the current limiter on the basis of information from a server.

Advisory Office Action:

Applicants acknowledge that in the Advisory Office Action dated June 7, 2006 the Office Action contended that "with voltage being substantially constant value power is proportional to current." However this response is not pertinent to the applicants' invention. The Office Action appears to admit that voltage is not constant, but only substantially constant. Therefore, since the voltage is not entirely constant and does change, distributing "electricity" on the basis of voltage is distinguishable from doing so on the basis of current.

Furthermore, as an example of substantially changing voltage, applicants point to "brown outs" which happen regularly throughout the country, especially in the summer time. A brown out occurs when the supply voltage drops so much that it can no longer power inductive motors. Therefore, supply voltage is not always substantially constant.

In light of these observations, applicants submit the arguments present on May 23, 2006 for formal consideration.

Claim Rejections 1 and 5 - 35 U.S.C. § 103(a)

Currently claim 1 reads as follows: "A method for collectively receiving power at a high voltage and distributing at a low voltage to a plurality of users, ... *grasping a maximum current capacity necessary for each of the users*...." The Office Action continues to rely on his past arguments that this feature is disclosed in Weiss, citing (column 14 lines 48-53). This passage states, "[t]his attribute allows both parties [specifically the energy management system] to express their view on what is the 'most economic' power or energy quantity under given circumstances (*e.g., the need for a* minimum or *maximum amount of power*, the need for a minimum or maximum price)." The Office Action contends that this "maximum amount of power" phrase discloses what is taught in claim 1 of the present invention, "grasping a maximum current capacity...." However, power is not the same as current, as is shown in the following equation where P is Power, I is Current and V is Voltage:

Equation 1

$$P = I \times V \text{ therefore } I = \frac{P}{V}$$

As shown in Equation 1, current is not equal to power, but current is equal to power divided by voltage. Given the relationship between power and current, *Weiss* does not teach "grasping a

maximum current capacity necessary for each of the users," as stated in independent claims 1 and 5.

Since *Weiss* does not disclose "grasping a maximum current capacity," it follows that *Weiss* also does not disclose "determining a contracted current," as stated in claims 1 and 5.

Furthermore, the Office Action contends that *Tanner* discloses "...determining a contracted *current* for each of the users depending on the maximum *current* capacity..." as stated presently in claim 1. In column 4, lines 58-67, *Tanner* reads:

The first value is a *maximum electricity flow* determined by the electricity customer, which may be based on the contractual and/or physical limitations of the electricity customer's substation. The first value may also be the *electrical customer's contractual peak demand* or other peak demand limit set by the electricity transfer station.

As emphasized in each of the two preceding passages, claim 1 of the present invention teaches a "contracted current," while *Tanner* teaches a contracted "electricity flow." Electricity is a layman's term, often used to describe power or energy. As indicated in Equation 1, power is not the same as current. As indicated in the following Equation 2, energy is also not equal to current.

Equation 2

$$E = \frac{P}{t}$$

In Equation 2, E is Energy, P is Power and t is Time. Combining Equation 1, with Equation 2 yields:

Equation 3

$$E = \frac{P}{t}; \qquad P = I \times V; \qquad \text{therefore} \qquad E = \frac{I \times V}{t} \text{ or } I = \frac{E \times t}{V}$$

As shown in Equation 3, energy does not equal current, but is dependent on current, voltage and time. Equations 2 and 3 indicate that *Tanner* does not disclose "...determining a contracted *current* for each of the users depending on the maximum *current* capacity...," since it discloses contracts that are related to energy and power, which are not the equivalent of current.

Therefore, *Tanner* does not disclose either "determining a contracted current," or, "grasping a maximum current capacity necessary for each of the users," as stated in claims 1 and 5.

As such, it is submitted that *Weiss* and *Tanner*, singly or in combination, fail to disclose or fairly suggest the following features of independent claims 1 and 5: "*grasping a maximum*

current capacity necessary for each of the users, determining a contracted current for each of the users depending on the maximum current capacity."

Claim Rejections 7 and 12 – 35 U.S.C. § 103(a)

Each of independent claims 7 and 12 call for "determining a *contracted current* for each of the users on the basis of information on each of the users supplied to the server," (emphasis added). Based on the previous analysis, neither *Weiss* nor *Tanner* discloses this feature of claims 7 and 12. Furthermore, neither *Weiss* nor *Tanner* discloses determining any *contracted current*.

Claim Rejections 2 and 9 - 35 U.S.C. § 103(a)

The Office Action contends that the following elements in claims 2 and 9 are disclosed in *Tanner*; "... an excessive current capacity which is not necessary for one user is allocated to another user who needs the *excessive current capacity*." The Office Action relies on column 3, lines 37-41, and column 4, lines 58-67 of *Tanner* which read; "... method allows *electricity* to be secured by a customer ... under an existing electricity supply contract and re-delivered by that customer to another party under a non-interruptible supply contract without risk of increasing the customer's peak demand above a desired value, wherein said desired value is a maximum *electricity flow* determined by the electricity consumer and is based on the contractual limitations of the electricity customer's substation."

As stated in the previous argument, electricity is not the same as current. Using Equations 1, 2 and 3, it is shown that energy or power (which is probably what was meant by the term electricity), is not the same as current. Therefore, when *Tanner* discloses "... a method allow[ing] *electricity* to be secured by a customer...," it is not the same as claims 2 and 9 in the present invention which state, "... an excessive current capacity which is not necessary for one user is allocated to another user who needs the *excessive current capacity*."

Claim Rejections 5, 11 and 15 - 35 U.S.C. § 103(a)

Claim 5, in addition to the following arguments, is also distinguished from the prior art for at least the above-noted reasons concerning the rejection of claim 1. Claims 5, 11 and 15 all involve either "determin[ing] a user who adds a current capacity," or "determine[ing] a user who can have an additional current capacity," "... on the basis of auction information supplied from each of the users when a total current capacity requested by each of the users is larger than a total contracted current to be distributed."

The Office Action contends this aspect of the claims is taught in *Mistr* in column 4, lines 29-31; "[i]f there is no capacity available for a desired transaction the potential user may request bids from those able to free up the needed capacity." *Mistr* discloses a bidding system in case users need additional "*capacity*." Lines 11-14 of column 4 state, "[i]n accordance with the present invention, an energy system user analyses on its terminal a desired transaction for the

movement of *energy*, such as the transmission of a requested amount of *electrical power*." This sentence helps define the word "capacity" as either "energy capacity" or "power capacity," and further indicates the nature of the *Mistr* invention. Like in the previously presented arguments, energy or power is not the same as current, and therefore *Mistr* does not teach all the elements of claims 5, 11 and 15.

Claim Rejections 8 and 12 - 35 U.S.C. § 103(a)

It is argued by the Office Action that the display and control features of claims 8 and 12 are disclosed in *Tanner*. Claims 8 and 12 read in part, "... a control device for controlling and *displaying* information of power consumed by each of the users is provided, and the control device and the server are connected via the network." The Office Action argues that this feature is disclosed in *Tanner* when it states, "[t]he electricity transfer station includes one or more electricity transfer devices, one or more electricity sources and an electricity transfer *controller*." Although a "controller" is mentioned in *Tanner*, it does not teach a device to "*display* information of power consumed by each of the users." Therefore *Tanner* does not disclose what is presently recited in claims 8 and 12.

In light of the aforementioned amendments and remarks, applicants submit that the application as currently presented is in condition for allowance.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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